/160 cont./

cold dry season,
805 warm dry season,
short rainy season,
rainy season.

Just as these various seasons of the year tend to be very irregular in the Kalahari, the Auin's division of the year also is quite variable.

821 There is only one designation, a collective name, for the starry sky.

173 I have not been able to detect any traces of a "history." Only events going back at most two generations are transmitted as an oral tradition.

172 The Auin know nothing about the Bushman drawings. At the watering place Kazupitzaub between Oas and Olifantskluft, in other words, in the Auin region, there are supposedly Bushman drawings on rock walls. The Auin call these drawings the "work of Satan." I should observe that this expression was given me by an interpreter who was unable to supply me with a better translation of the Bushman concept. In case I should once again go to this region, I shall report on this matter.

173 In their own opinion, the Auin have been living in the region they now occupy "as long as there have been human beings."

X. Counting and Calculating

802 Fingers and toes are used for counting.
Five is expressed by the word for hand, ten by two hands, 15 by two hands and one foot, 20 by two hands and two feet.

Among about 20 Rietfontein Auin, there was only one who could count beyond 20. I cannot say, however, whether this man may not have hit upon the idea through my suggestion. He counted up to 40.

/267 cont./

16. Numbers

●802

English	Heikum	Kung	Name
1	tschin ≠ĕ	tschin ≠ĕ	/ai
2	tschi dzá	tschidzá	/gam
3	tschin /ăni	tschin /ăni	/oná
4	unsicher	unsicher	hagá
/268/			
5	/gau	/gau (/gau = hand)	—
6-9 quite uncertain among the Heikum and Kung			
10	/gau ≠eissen (finger) (toes)	/gau ≠eissen	—

Among the Heikum and Kung one can discover with certainty only the terms for 1, 2, 3, 5, and 10; all the other expressions are uncertain. It is noteworthy that 5 is designated by "hand," and 10 by "hand and toes."

Among the Heikum and Kung Bushmen the manner of counting on the fingers is the same.

To indicate 1, the little finger of the left hand is grasped with the index finger and thumb of the right hand and bent in the hollow of the hand; for 2, 3, and 4, the fourth, third, and second fingers of the left hand follow, and are bent in the hollow of the hand in the same manner. For 6, 7, 8, and 9, the same procedure is used with the right hand as was used with the left for 1, 2, 3, and 4. In order to indicate 10, the two hands, flat but slightly hollowed, are placed against each other with the palms together.

201 The Bushman likes to touch his lower lip briefly with the tip of the little finger of his right hand before he goes through the motions of counting on his fingers.

194 It has proved impossible to determine whether in the language of the Heikum or the Kung the change of pitch in the pronunciation of vowels plays a part as it does in the language of the Hottentots.

2: Schapera E-4, 5 (no date)1930
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804 805 823 takes to reach the place. If, for instance, a Bushman is asked how far a certain waterhole is, he points to the part of the sky which the sun will have reached by the time one gets to that waterhole; or, if it is far, he says: "One night on the way," or "two", etc.; or, again, if asked the length of a journey, he will name the places at which he slept or will sleep, touching a finger to his lips for each, then hold up the fingers, saying: "So many nights" (not days).[1]

802 177 In counting, they use only the numerals one and two quite freely. Three they sometimes use, taking the Nama word for it, although they are more apt to speak of "two and one" than "three". For anything above three they generally make use of the word "many", although by the Northern Bushmen Nama or Bantu numerals may sometimes by substituted. These higher numerals, however, are evidently picked up from their neighbours by ear, and repeated without much consideration of their value, as, says Miss Bleek, a child of three will count in imitation of its seniors, varying the sequence of numerals each time. In some cases, among both the Cape 802 Bushmen and several of the North-Western tribes, such formations [803] are also found as $4 = 2 + 2$, $5 = 2 + 2 + 1$, and so on up to ten. The numeral system of the Bushmen is thus essentially binary in principle. Occasionally, however, modifications occur suggestive of a quinary system. Thus in Naron the words for "four" mean "two fingers and two fingers", but "five" is "hand" (sometimes, however 2 + 2 + 1 fingers), "ten" is "both hands", "fifteen" "both hands, one foot"; and the same system occurs in Auen. As these words indicate, the Bushmen count larger numbers on their fingers. In counting, they begin with the little finger of the left hand, touching each finger in turn on the lips, then continue in the same manner from the thumb of the right hand. As a rule, it may be added, nothing that they want to count exceeds ten, indeed, hardly ever reaches that numeral![2]

[1] D. F. Bleek, *Naron*, 38; *idem*, "Bushmen of Central Angola," loc. cit.; Kaufmann, loc. cit.

[2] D. F. Bleek, loc. cit.; Kaufmann, loc. cit.; cf. Schmidl, "Zahl und Zählen in Afrika," *Mitt. anthrop. Ges. Wien*, xlv (1915), pp. 194–5, for a useful summary sketch of Bushman numeral systems.

[pp. 221-446 not processed for the FX10 Bushmen file. see category 116, FX13 Hottentot]